

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

**PETITION OF TESLA, INC. & SUNRUN, INC.
FOR DECLARATORY JUDGMENT
PURSUANT TO R.I. GEN. LAWS §39-26.4 et seq.,
THE NET METERING ACT**

Docket No. 4743

**RESPONSE OF TESLA, INC. TO FIRST SET OF DATA REQUESTS DIRECTED TO
TESLA, INC. AND SUNRUN INC. BY THE STATE OF RHODE ISLAND DIVISION OF
PUBLIC UTILITIES AND CARRIERS
(October 10, 2017)**

1-1. Please list and describe in detail any legal, technical, or policy concerns that NGRID has expressed to Tesla and /or Sunrun relative to allowing Solar+Storage systems to be eligible for net metering status. Also, provide any analyses, reports, studies, or other related documents that discuss these concerns.

1-1. RESPONSE: NGRID has not expressed any legal, technical, or policy concerns to Tesla related to allowing Solar+Storage to be eligible for net metering status beyond that described in its petition. Please also see NGRID response to Division Data Request 1-1. Tesla has no analyses, reports, studies, or other related documents responsive to this request.

1-2. Please provide copies of manuals and technical specifications for any existing Storage systems that Tesla and /or Sunrun might deploy in Rhode Island if the petition is granted.

1-2. RESPONSE: Tesla's Powerwall Owner Manual is available at the following web link:

https://www.tesla.com/sites/default/files/pdfs/powerwall/powerwall_2_ac_owners_manual.pdf?

Tesla's Powerwall Technical Specifications are available at the following web link.

Please refer to the "Technical Specs" section at the bottom of the page.

<https://www.tesla.com/powerwall>

1-3. Please provide a one-line diagram showing how the Solar Net Metered Resource, the Storage system, the premises / customer-host load, and the distribution grid are connected. Show all metering points, and inverters and other control systems that will ensure that the Storage system will only be charged by the Solar Net Metered Resource.

1-3. RESPONSE: Please refer to the Powerwall Owner's Manual are available at the following web link:

[https://www.tesla.com/sites/default/files/pdfs/powerwall/powerwall_2_ac_owners_manual.pdf?](https://www.tesla.com/sites/default/files/pdfs/powerwall/powerwall_2_ac_owners_manual.pdf)

As discussed in the Powerwall Owner's Manual, each installation has metering adequate to determine the contribution of the grid, solar, and the Powerwall. Each installation also has a Gateway which controls the operation of the system locally. To ensure that the Powerwall charges only from the onsite solar resource, the Gateway control system uses information about the onsite load and solar generation to actively manage Powerwall charging.

- 1-4. The petition states that the default setting for the Powerwall H6 Storage system disables battery charging from the grid. Please describe what other settings are available, how these settings can be changed, and who may be change them. Also describe in detail how NGRID will be able to monitor these settings and /or battery charging from the grid.**

1-4. RESPONSE: Currently, Tesla offers Rhode Island residential customers two types of services through its battery products 1) backup power and 2) self-consumption. Customers are able to select these services, but other settings like solar-only charging are not user-controllable. The default setting on the Tesla's Powerwall 2 AC product enforces battery-only charging from the solar PV system. There is no need for NGRID to monitor these settings and/or battery charging from the grid.

- 1-5. How will Tesla and / or Sunrun determine the size and operating characteristics of the battery storage systems that will be installed with Solar Net Metered Resources in Rhode Island if the petition is granted? Please describe in as much detail as possible, and provide examples for several solar system sizes up to 25 KW AC.**

1-5. RESPONSE: Tesla does not intend to change the way it sizes its customers' solar net metering systems. Consistent with National Grid's position, it is Tesla' position that with respect to Net Metering eligibility, the solar+storage system capacity is equal the inverter nameplate or capacity rating of the solar PV unit (i.e the Solar Net Metered Resource) that is associated with, up to 25 kW. Adding a battery a solar PV system does not alter the size of that system.

- 1-6. Data Request withdrawn by Division of Public Utilities and Carriers**

- 1-7. If the petition is granted, please describe how Tesla and /or Sunrun will operate the Storage system, including but not limited to when, how, and under what conditions the Storage system will be charged and discharged. Please answer this question with and without TOU rates.**

1-7. RESPONSE: How an energy storage system operates depends on what the battery storage system is used for, meaning the application. For example, if the system is used for backup power only, then the storage unit will discharge to power home loads in the event of a grid failure (after the loads and storage unit are isolated from the grid). Another example is if the system is being used for solar self-consumption, the system will charge when solar production exceeds home load and will discharge when solar production is less than home load. Once Time of Use rates are available in Rhode Island, Tesla will evaluate other operational modes for customers.

1-8. According to Rhode Island General Laws, Net Metered Resources are sized to annually produce electricity in an amount that is equal to or less than the Net Metering Customer's average annual usage. If the petition is granted, will the addition of a Storage system alter or change the size of the Solar Net Metered Resource to be installed? Please explain why or why not in as much detail as possible.

1-8. RESPONSE: No, the addition of the storage system will not alter or change the size of the PV unit (i.e the Solar Net Metered Resource). Please reference data request response 1-5.

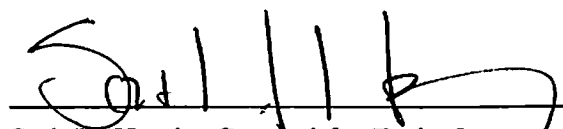
1-9 - 1-13. Data Requests withdrawn by Division of Public Utilities and Carriers

Prepared by or under the supervision of
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being delivered by first class mail to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.


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Tesla, Inc. & Sunrun, Inc – Petition for Declaratory Judgment – Docket No. 4743

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